US ENVIRONMENTAL PROTECTION AGENCY
Region 1 New England - OEME
11 Technology Drive, North Chelmsford, MA 01863

Inspection Report

Date: January 14, 2014
Subject: Nor Dic Farm - Concentrated Animal Feeding Operation (CAFO) Inspection
Prepared by: Lisa Thuot – USEPA Compliance Inspector

I. Facility Information:

Name: Nor Dic Farm
Location: 5305 Jersey Street
Vergennes, VT 05491

Owner/Operator: Richard Thurber, Owner
Mailing Address: (same as above)

II. Inspection Information:

Date of Inspection: July 16, 2013

EPA Inspector(s): Lisa Thuot – Compliance Inspector (EPA Region 1/OEME)
Diane Boisclair – Compliance Inspector (EPA Region 1/OES)
Facility Contact(s) During Inspection: Richard Thurber, Owner

State Contact(s): Nate Sands, Vermont Agency of Agriculture
Marli Rupe, Vermont Dept. of Environmental Conservation

Weather Conditions: Sunny, ~ 89°F

III. Purpose of Inspection:

The purpose of the inspection was to assess applicability of and compliance with the CAFO requirements under the Clean Water Act at 40 C.F.R. Part 122.23.

Entry Procedures
Inspectors contacted Mr. Thurber by phone approximately 24-hours in advance of the inspection; they could not reach him directly but left a voicemail on his answering machine explaining the purpose of the inspection, estimated arrival time, etc. EPA inspectors met with Mr. Thurber and presented their credentials upon arrival, and he provided a tour of his farm.

IV. Inspection Information/Findings

Nor Dic Farm ("the farm") is a dairy business which Richard Thurber has owned since 1976, and which Thurber family members have owned since 1947. The farm includes approximately 1,300 cows (680 milking and dry cows and close to the same amount of youngstock). The farm has a nutrient management plan (NMP) which is updated yearly by Bourdeau Brothers of Middlebury, VT. Manure land application is completed by an outside company/contractor on approximately 1,500 acres. Typically they land apply twice per season, and once per season on some fields. Crops include corn, alfalfa, and grass. Manure is drawn from the farm's main manure pit, a concrete pit located near the milking barn, and the heifer farm manure pit. Animal mortalities are composted on-site. Town water supply is the animal drinking water source.

Recent improvements at the farm include an upgrade to new double-walled, aboveground oil storage tanks in the fall of 2012. During the farm tour, inspectors observed a new double-walled, 500-gallon #2 fuel oil tank located outside the milking barn.

Main Farm:

At the milking barn, manure is scraped and collected with farm equipment then pumped into an adjacent concrete manure pit via piping (picture #1). Inspectors observed evidence of a liquid manure leak from the barn foundation onto the ground next to the concrete pit (picture #2). Mr. Thurber said on occasion, runoff from heavy rain settles in this area and flows into and floods the barn; in these situations he said they pump flood water from the barn into the concrete pit. Inspectors did not observe any liquid manure leaving the area between the barn and the pit, but recommended the area be periodically cleaned to avoid runoff/discharge to a drainage ditch located south of the farm. Milking parlor wash wastewater goes to the manure pit.

At the main barn, liquid waste flows by gravity through floor drains and is piped to the main clay-lined manure pit. During the inspection, the manure pit was close to capacity with minimal freeboard (picture #3). Mr. Thurber said they hadn't been able to land apply manure due to a month of heavy rain; manure spreading was last done in late May after the first cut. He said hay was now being cut from the fields, and they were planning to land apply manure within the next week or so after the second cut. On the north side of the main barn, excess dried bedding and solids are stored outside behind a concrete berm. During the inspection, some solids were overtopping the berm and some spilled on the ground (picture #4).

The farm has four concrete-walled silage bunkers. Silage piles are covered in plastic and tires. Runoff from the north side of the silage bunkers flows to a low point and into a vegetated drainage ditch/swale that flows east through adjacent fields (pictures #5-6). According to maps,

the drainage ditch/swale follows an overland path approximately 0.7 miles toward Dead Creek. Mr. Thurber said USDA representatives looked at his silage area several years ago, and determined the silage runoff was a low risk to Dead Creek. The silage area was dry during the inspection. The farm's lime supply is stored across from the silage bunkers in a covered bay with stalls which keeps moisture and bacteria down, according to Mr. Thurber.

Heifer/Youngstock Facility:

The farm's heifer/youngstock facility, which has about 150 animals, is located off a dirt access road on the opposite side of Jersey Street (across from the main farm). Liquid manure and solids from the heifer barn are scraped by skid steer and transferred into a grated pit which gravity-flows into the adjacent heifer manure pit (picture #7). The heifer manure pit was filled close to capacity with minimal freeboard. Inspectors observed manure solids accumulated outside the manure pit and the heifer barn (picture #8). Sawdust was also being stored outside the heifer barn next to an L-shaped concrete berm. Inspectors recommended cleaning up this area to prevent manure runoff across the dirt access road and into a drainage ditch along the access road. The drainage ditch flows into an unnamed stream (picture #9), which runs west side of the heifer farm and discharges to Lake Champlain, located approximately 0.9 miles to the west.

V. Exit Briefing

EPA inspectors conducted an exit briefing with Richard Thurber, with Nate Sands and Marli Rupe also present. The following issues were noted:

- The manure pits at the main farm and heifer farm were observed to be at or close to capacity. Mr. Thurber said the heavy rains had delayed the manure spreading; he is planning to land apply after the second cut this month.

- Residual manure deposited outside the milking barn and concrete pit from heavy rain/flooding should be periodically cleaned up.

- Bedding/solids were overtopping the concrete containment berm on the north side of the main barn and required clean-up.

- Manure accumulated outside the heifer barn should be cleaned up to avoid runoff of manure/solids into a drainage ditch located south of the adjacent access road.

Enclosures/Attachments:

Inspection Pictures
Aerial picture map